

AMENDMENT TO THE CLAIMS

The following claims listing replaces all previous claims listings:

1-50. (Cancelled)

51. (New) A composition for treating a bacterial biofilm wherein the biofilm is a biofilm of a patient , said composition comprising a first bacteriophage that is capable of infecting a bacterium within said biofilm, a first polysaccharide lyase enzyme that is capable of degrading a polysaccharide within said biofilm, and a pharmaceutically-acceptable antimicrobial agent,

wherein the biofilm includes a Pseudomonas sp., and wherein the first bacteriophage is capable of infecting said Pseudomonas sp.

52. (New) A composition according to Claim 51, wherein the pharmaceutically acceptable antimicrobial agent is an antibiotic.

53. (New - Withdrawn) A composition according to Claim 51, further comprising a DNase.

54. (New - Withdrawn) A composition according to Claim 51, further comprising a second polysaccharide lyase, wherein the first and second polysaccharide lyase are different.

55. (New) A composition according to Claim 51, wherein the first polysaccharide lyase is encoded by the bacteriophage.

56. (New) A composition according to Claim 51, wherein the bacteriophage encodes one or more of a pharmaceutically-acceptable antimicrobial agent, a DNase, or a second polysaccharide lyase that is different from the first polysaccharide lyase.

57. (New - Withdrawn) A composition according to Claim 51, comprising a second bacteriophage, which is different from the first bacteriophage, and wherein the second bacteriophage optionally encodes a second polysaccharide lyase.

58. (New - Withdrawn) A composition according to Claim 51, comprising a second pharmaceutically-acceptable antimicrobial agent.

59. (New) A composition according to Claim 51, wherein the bacteriophage is selected from the group consisting of GH4 (ECACC Accession No. 02121203), GH6 (ECACC Accession No. 02121202), GH13 (ECACC Accession No. 02121201), GH14 (ECACC Accession No. 02121204); and a bacteriophage having accession No. ATCC 12055-B1, ATCC 12055-B2, ATCC 12055-B3, ATCC 14205-B1, ATCC 14206-B1, ATCC 14207-B1, ATCC 14209-B1, ATCC 14210-B1, ATCC 14211-B1, ATCC 14212-B1, ATCC 14213-B1, ATCC 14214-81, ATCC 15692-B2, ATCC 15692-B3, ATCC 25102-B1, ATCC BAA-26-B1, ATCC BAA-27-B1, ATCC BAA-28- B1, ATCC BAA-28-B2, ATCC BAA-29-B1, ATCC BAA-30-B1, ATCC BAA-31-B1, ATCC BAA-47-B1, ATCC BAA-79-B1, ATCC BAA-81-B1, and ATCC BAA-81-B2.

60. (New) A composition according to Claim 59, wherein the first bacteriophage encodes said first polysaccharide lyase.

61. (New - Withdrawn) A composition according to Claim 51, further comprising a second bacteriophage selected from the group consisting of GH4 (ECACC Accession No. 02121203), GH6 (ECACC Accession No. 02121202), GH13 (ECACC Accession No. 02121201), and GH14 (ECACC Accession No. 02121204), wherein the first bacteriophage and second bacteriophage are different.

62. (New) A composition according to Claim 51, wherein the first bacteriophage comprises a heterologous gene encoding a first polysaccharide lyase enzyme.

63. (New) A composition according to Claim 54, wherein the first and/or second polysaccharide lyase is an alginate lyase.

64. (New) A composition according to Claim 51 in the form of an aerosol formulation, comprising one or more of an excipient, surfactant, and/or propellant.

65. (New - Withdrawn) A method of treating a biofilm infection, wherein the biofilm is a biofilm of a patient, comprising administering to a patient:

a first bacteriophage capable of infecting a bacterium within said biofilm;

a first polysaccharide lyase enzyme capable of degrading a polysaccharide within said biofilm; and

a pharmaceutically-acceptable antimicrobial agent,

wherein the biofilm includes a *Pseudomonas* sp., and wherein the first bacteriophage is capable of infecting said *Pseudomonas* sp.

66. (New - Withdrawn) A method according to Claim 65, wherein the pharmaceutically-acceptable antimicrobial agent is an antibiotic.

67. (New - Withdrawn) A method according to Claim 65, further comprising administering DNase.

68. (New - Withdrawn) A method according to Claim 65, further comprising administering a second polysaccharide lyase, wherein the first and second polysaccharide lyase are different.

69. (New - Withdrawn) A method according to Claim 65, wherein the bacteriophage encodes one or more of a pharmaceutically-acceptable antimicrobial agent, a DNase, or a second polysaccharide lyase that is different from the first polysaccharide lyase.

70. (New - Withdrawn) A method according to Claim 65, comprising administering a second bacteriophage, which is different from the first bacteriophage, and wherein the second bacteriophage optionally encodes a second polysaccharide lyase.

71. (New - Withdrawn) A method according to Claim 65, comprising administering a second pharmaceutically-acceptable antimicrobial agent.

72. (New - Withdrawn) A method according to Claim 65, wherein the bacteriophage is selected from the group consisting of GH4 (ECACC Accession No.

02121203), GH6 (ECACC Accession No. 02121202), GH13 (ECACC Accession No. 02121201), GH14 (ECACC Accession No. 02121204); and a bacteriophage having accession No. ATCC 12055-B1, ATCC 12055-B2, ATCC 12055-B3, ATCC 14205-B1, ATCC 14206-B1, ATCC 14207-B1, ATCC 14209-B1, ATCC 14210-B1, ATCC 14211-B1, ATCC 14212-B1, ATCC 14213-B1, ATCC 14214-81, ATCC 15692-B2, ATCC 15692-B3, ATCC 25102-B1, ATCC BAA-26-B1, ATCC BAA-27-B1, ATCC BAA-28-B1, ATCC BAA-28-B2, ATCC BAA-29-B1, ATCC BAA-30-B1, ATCC BAA-31-B1, ATCC BAA-47-B1, ATCC BAA-79-B1, ATCC BAA-81-B1, and ATCC BAA-81-B2.

73. (New - Withdrawn) A method according to Claim 65, wherein the first bacteriophage is a GH bacteriophage and encodes said first polysaccharide lyase.

74. (New - Withdrawn) A method according to Claim 65, further comprising administering a second bacteriophage selected from the group of GH4 (ECACC Accession No. 02121203), GH6 (ECACC Accession No. 02121202), GH13 (ECACC Accession No. 02121201), and GH14 (ECACC Accession No. 02121204), wherein the first bacteriophage and second bacteriophage are different.

75. (New - Withdrawn) A method according to Claim 65, wherein the first bacteriophage comprises a heterologous gene encoding a first polysaccharide lyase enzyme.

76. (New - Withdrawn) A method according to Claim 68, wherein the first and/or second polysaccharide lyase is an alginate lyase.

77. (New - Withdrawn) A method according to Claim 65 comprising administering said first bacteriophage, said first polysaccharide lyase and said pharmaceutically-acceptable antimicrobial agent in the form of an aerosol formulation, comprising one or more of an excipient, surfactant, and/or propellant.

78. (New - Withdrawn) A method according to Claim 65, wherein following administration the bacterial cell count of the biofilm is reduced by at least one log.

79. (New - Withdrawn) A method according to Claim 65, wherein the composition or bacteriophage is administered in more than one separate dose.

80. (New - Withdrawn) A method according to Claim 65, wherein the composition or first bacteriophage is administered in at least three separate doses.

81. (New - Withdrawn) A method according to Claim 65, wherein the first bacteriophage is administered prior to or subsequent to the first polysaccharide lyase.

82. (New - Withdrawn) A method according to Claim 65, wherein the first bacteriophage is administered prior to, or subsequent to said pharmaceutically-acceptable antimicrobial agent.

83. (New - Withdrawn) A method according to Claim 65, wherein the first bacteriophage is administered prior to or subsequent to a second polysaccharide lyase that is different from the first polysaccharide lyase.

84. (New - Withdrawn) A method according to Claim 65, wherein the first bacteriophage is administered prior to or subsequent to a second bacteriophage that is capable of infecting a bacterium within the biofilm, wherein said second bacteriophage is different from the first bacteriophage.

85. (New - Withdrawn) A method of making a modified bacteriophage capable of degrading a biofilm, wherein the biofilm is a biofilm of a patient, the method comprising:

- a) selecting at least one gene encoding a polysaccharide lyase enzyme that degrades a polysaccharide within said biofilm;
- b) selecting a bacteriophage that is capable of infecting a bacterial species or strain residing within the biofilm; and
- c) introducing at least one of the genes selected in step a) into the bacteriophage nucleic acid.

86. (New - Withdrawn) A method according to Claim 85, wherein the bacteriophage is selected from the group consisting of GH4 (ECACC Accession No.

02121203), GH6 (ECACC Accession No. 02121202), GH13 (ECACC Accession No. 02121201), GH14 (ECACC Accession No. 02121204); and a bacteriophage having accession No. ATCC 12055-B1, ATCC 12055-B2, ATCC 12055-B3, ATCC 14205-B1, ATCC 14206-B1, ATCC 14207-B1, ATCC 14209-B1, ATCC 14210-B1, ATCC 14211-B1, ATCC 14212-B1, ATCC 14213-B1, ATCC 14214-81, ATCC 15692-B2, ATCC 15692-B3, ATCC 25102-B1, ATCC BAA-26-B1, ATCC BAA-27-B1, ATCC BAA-28 B1, ATCC BAA-28-B2, ATCC BAA-29-B1, ATCC BAA-30-B1, ATCC BAA-31-B1, ATCC BAA-47-B1, ATCC BAA-79-B1, ATCC BAA-81-B1, and ATCC BAA-81-B2.

87. (New - Withdrawn) A method according to Claim 85, wherein the method further comprises the step of testing the efficacy of the modified bacteriophage against the biofilm *in vitro*.

88. (New - Withdrawn) A method according to Claim 85, wherein the biofilm includes a *Pseudomonas* sp., and wherein the first bacteriophage is capable of infecting said *Pseudomonas* sp.

89. (New - Withdrawn) A method according to Claim 85, wherein said at least one gene encodes an alginate lyase.

90. (New - Withdrawn) A method of identifying a bacteriophage for use in treatment of a biofilm, wherein the biofilm is a biofilm of a patient, the method comprising:

- a) identifying a bacteriophage that is capable of infecting a bacterial species or strain within said biofilm; and
- b) confirming that said bacteriophage encodes a polysaccharide lyase that degrades a polysaccharide within the biofilm.

91. (New) A composition according to Claim 51, wherein the biofilm is a lung biofilm of a cystic fibrosis patient.

92. (New - Withdrawn) A method according to Claim 65, wherein the biofilm is a lung biofilm of a cystic fibrosis patient.

93. (New - Withdrawn) A method according to Claim 85, wherein the biofilm is a lung biofilm of a cystic fibrosis patient.

94. (New - Withdrawn) A method according to Claim 90, wherein the biofilm includes a *Pseudomonas* sp., and wherein the first bacteriophage is capable of infecting said *Pseudomonas* sp.

95. (New - Withdrawn) A method according to Claim 90, wherein the biofilm is a lung biofilm of a cystic fibrosis patient.

96. (New) A composition according to Claim 51, wherein the patient is an animal.

97. (New) A composition according to Claim 51, wherein the patient is a human.

98. (New - Withdrawn) A method according to Claim 65, wherein the patient is an animal.

99. (New - Withdrawn) A method according to Claim 65, wherein the patient is a human.

100. (New - Withdrawn) A method according to Claim 85, wherein the patient is an animal.

101. (New - Withdrawn) A method according to Claim 85, wherein the patient is a human.

102. (New - Withdrawn) A method according to Claim 90, wherein the patient is an animal.

103. (New - Withdrawn) A method according to Claim 90, wherein the patient is a human.

104. (New - Withdrawn) A method according to Claim 65, wherein following administration the bacterial cell count of the biofilm is reduced by at least three logs.